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We claim:

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- 1. A substantially purified nucleic acid molecule having a nucleic acid sequence selected from the group consisting of SEQ ID NO: 1 through SEQ ID NO: 52202 or complements thereof.
- 2. A substantially purified nucleic acid molecule, said nucleic acid molecule capable of specifically hybridizing to a second nucleic acid molecule having a nucleic acid sequence selected from the group consisting of SEQ ID NO: 1 through SEQ ID NO: 52202 or complements thereof.
- 3. The substantially purified nucleic acid molecule according to claim 2, wherein said nucleic acid molecule comprises a microsatellite sequence.
- 4. The substantially purified nucleic acid molecule according to claim 2, wherein said nucleic acid molecule comprises a region having a single nucleotide polymorphism.
- 5. A substantially purified nucleic acid molecule encoding a protein or fragment thereof, wherein said protein or fragment thereof is selected from the group consisting of a rice protein or fragment thereof from Table 1.
- 6. The substantially purified nucleic acid molecule according to claim 5, wherein said rice protein or fragment thereof is a homologue of a dicot plant protein or fragment thereof.
- 7. The substantially purified nucleic acid molecule according to claim 5, wherein said rice protein or fragment thereof is a homologue of a non-rice monocot plant protein or fragment thereof.